## What (how) do we learn from images?



Organizers: Hanna Worliczek (McDonnell Fellow @ MBL & University of Vienna)

Karl Matlin (<mark>XXX</mark>)

Contact: kmatlin@uchicago.edu

Please contact us to receive the readings. Updates and details will be announced at <a href="https://mcdonnellinitiativeatmbl.com/">https://mcdonnellinitiativeatmbl.com/</a> in the news section

Fridays at 12h, July 19-August 30, 2019

Microscopic imaging and data visualization are essential tools to generate knowledge in biological research. The MBL has a longstanding tradition of developing and applying novel as well as established imaging methods. In this tradition, this Summer Journal Club aims to provide a platform for discussing central aspects of visual knowledge and their impact on knowledge production, guided by a central question: What and how do we learn from images?

Each session is based on questions and readings that are intended to stimulate discussions on the respective topics of: facts and artefacts, intervention and objectivity, innovation and new methodologies, imaging standards and beauty, morphology and function, biological diversity and spatial organization.

The McDonnell Initiative @ MBL brings scientists and historians and philosophers of science together who work on the same problems. Along this line, we cordially invite you to join our weekly Journal Club. Each session will have short assigned readings and an aural-visual introduction to the topic discussed. Both will serve as a basis to discuss perspectives on imaging and visualization represented by the participants.

| July 19<br>Grass Reading<br>Room, Lillie | What is involved in microscopic imaging? Of interference and intervention, selectivity and objectivity.  |
|--|--|
| July 26<br>Room t.b.a.                   | How do we know what we see is real? Of facts, artefacts, reference systems & validation.   |
| August 2 Grass Reading Room, Lillie      | When can images stand alone? Epistemological roles of images.  |
| August 9 Grass Reading Room, Lillie      | How has morphology changed through molecularization? A History of Immunofluorescence Microscopy in Cell Biology (presentation and discussion by Hanna Worliczek) |
| August 16 Grass Reading Room, Lillie     | Is a good image beautiful? Of imaging standards, beauty, and persuasion.   |
| August 23 Grass Reading Room, Lillie     | How to visualize biological diversity and spatial organization? Of FISH, pangenomics, and metagenomics.  |
| August 23 Grass Reading Room, Lillie     | Do images show us function? Of gene ontology and molecular mapping of the cell.  |